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| APPLICATION NO.                                | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/776,899                                     | 02/11/2004  | Toshitaka Shimomura  | MEIP122170          | 3060             |
| 26389  | 7590        | 06/22/2005           | EXAMINER            |                  |
| CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC |             |                      | LEE, PATRICK J      |                  |
| 1420 FIFTH AVENUE                              |             |                      | ART UNIT            |                  |
| SUITE 2800                                     |             |                      | PAPER NUMBER        |                  |
| SEATTLE, WA 98101-2347                         |             |                      | 2878                |                  |

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/776,899

Applicant(s)

SHIMOMURA ET AL.

Examiner

Patrick J. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0204.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on February 2<sup>nd</sup>, 2004. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

### ***Drawings***

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because labels are handwritten on a plurality of the figures. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

3. Figures 16-19 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Information Disclosure Statement***

5. The information disclosure statement filed 2/11/2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the Japanese references (JP 2610624 and JP 6023282) do not have English translations attached. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

***Claim Objections***

6. Claim 8 is objected to because of the following informalities: "diffused" should read "diffuse".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements/steps, such omission amounting to a gap between the elements/steps. See MPEP § 2172.01. The omitted elements/steps are: With respect to claims 1 & 9, it is indefinite as to how the distances are changed and what components are moved to effectuate the changes in the distances between the different components. As a result, independent claims 1 & 9 and dependent claims 2-8 & 10 are rejected.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1, 7, & 9 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,075,562 to Greivenkamp, Jr. et al.

Greivenkamp, Jr. et al disclose an encoding device comprising first grating (52), second grating (56), lens (54), and photodetector (66).

With respect to claim 1, Greivenkamp, Jr. et al disclose a device comprising: first grating (18, 52) as a main scale with a grating; light receiving portion with photodetector (42, 66) as a light receiving element for detecting a bright-dark pattern and second grating (34, 56) as a index grating; and lens (54) as a lens disposed between main scale (52) and light receiving portion (56, 66). Greivenkamp, Jr. et al disclose the movement of grating (52) to adjust the distance (L) to affect the magnification.

With respect to claim 2, Greivenkamp, Jr. et al disclose the index grating (34) and light receiving portion (42) being integrated in second optical device (30).

With respect to claim 7, Greivenkamp, Jr. et al disclose main scale (52) as a reflection type.

With respect to claim 9, Greivenkamp, Jr. et al disclose a device comprising: first grating (52) as a main scale with a grating; light receiving portion with photodetector (66) as a light receiving element for detecting a bright-dark pattern and second grating (56) as a index grating; and lens (54) as a lens disposed between main scale (52) and light receiving portion (56, 66). Greivenkamp, Jr. et al disclose the movement of grating (52) to adjust the distance (L) to affect the magnification.

With respect to claim 10, Greivenkamp, Jr. et al disclose the index grating (34) and light receiving portion (42) being integrated in second optical device (30).

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 4, 6, & 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,075,562 to Greivenkamp, Jr. et al.

Greivenkamp, Jr. et al disclose the device as described in the discussion of claims 1-2, 7, & 9-10.

With respect to claim 4, the use of a lens array is not explicitly disclosed, but such would have been obvious to one of ordinary skill in the art to have multiple light beams incident on the array of photodetectors.

With respect to claim 6, the use of partition plates between adjacent lenses is not explicitly disclosed but such would be obvious to one of ordinary skill in the art to prevent the interference of light.

With respect to claim 8, the modified Greivenkamp, Jr. et al disclose a light source (66), but the teachings do not explicitly disclose the use of a lens as a collimator lens. However, such would have been obvious to one of ordinary skill in the art to modify the device accordingly in order to make as much of the light incident on detector.

14. Claims 3 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,075,562 to Greivenkamp, Jr. et al in view of US 4,948,968 to Matsui.

With respect to claims 3 & 5, the modified Greivenkamp, Jr. et al do not explicitly disclose the use of an aperture, but such is disclosed by Matsui in the use of a blocking plate (306). To modify the teachings of Greivenkamp, Jr. et al accordingly would have

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been obvious to one of ordinary skill in the art, as it would allow for light of only a zero diffractive order to be incident on the detector.

### ***Double Patenting***

15. Claims 1-10 of this application conflict with claims 1-10 of Application No. 10/804,636. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

16. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35.U.S.C. 101.

17. Claims 1-10 provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-10 of copending Application No. 10/804,636. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.



**Conclusion**

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Lee whose telephone number is (571) 272-2440. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J. Lee  
Examiner  
Art Unit 2878

PJL  
May 23<sup>rd</sup>, 2005

  
Stéphane B. Allen  
Primary Examiner